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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,671	03/17/2004	Eberhard Bock	8470G-000010	2679

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EXAMINER

WEST, PAUL M

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 08/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,671

Applicant(s)

BOCK ET AL.

Examiner

Paul M. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 3,6-10,14,18-20,22 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,11-13,15-17,21 and 24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Driver.
3. As to claims 1 and 4, Driver teaches and apparatus comprising: a sensor 2 for detecting a leak; and a depot 8 for picking up the leak, the depot being monitored by the sensor 2, wherein the depot consists of an absorbent, nonwoven material (Col. 4, lines 7-11) and delayed leak detection by the sensor 2 is possible.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Driver.
6. As to claims 2, 11, and 12 Driver teaches a depot 8 that is ring-shaped, annular, and comprises an absorbent, nonwoven material (Col. 4, lines 7-11), the depot being

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provided on a side of a sealing ring 10 that faces its surroundings and being positioned ahead of leak detection means 2, but does not teach it being a disk. However it would have been obvious to use a disk shape because this shape provides the same function as the depot of Driver and it has been held that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

7. Claims 1, 5, 13, 16, 17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Driver.

8. As to claims 1, 5, and 13, Davis teaches a sealing arrangement comprising: a sensor 76 for detecting a leak, fastened on a carrier plate (top part of housing 51); a depot 35,41,48,52,58 for picking up the leak, the depot being monitored by the sensor wherein delayed leak detection by the sensor is possible; and a sealing ring 16 inserted into a supporting ring 27. Davis does not teach the depot consisting of an absorbent or swellable material. Driver teaches a leak detection apparatus with a depot 8 that consists of an absorbent material (Col. 4, line 7) for picking up a leak. It would have been obvious to one of ordinary skill in the art to use the absorbent material as taught by Driver in the apparatus of Davis because an absorbent material would help to slow or prevent leaking fluid from flowing or dripping on other components of the apparatus.

9. As to claims 16 and 17, Davis teaches all of the limitations as set forth above and further teaches the sensor 76 detecting optical changes of the depot (Par. 0049, lines 1-2). Davis does not teach the sensor consisting of a reflected infrared light barrier,

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however it would have been obvious to one of ordinary skill in the art to use a reflected infrared light barrier sensing device because they are a common, readily available, and inexpensive type of optical sensor.

10. As to claim 21, Davis teaches a signal transmission from the sensor 76 occurring through a round cable 80.

11. Claims 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Driver and further in view of Patterson et al.

12. As to claims 15 and 24, the combination of Davis and Driver teaches all of the limitations as set forth above, and Davis further teaches a sealing lip 38 that is disposed a small distance from the machine element 24, as well as a supporting ring 22. The combination of Davis and Driver does not teach the sealing arrangement comprising an elastomeric layer that is part of the sealing lip or that covers the outer periphery of the axial leg of the supporting ring. Patterson et al. teach a sealing means on a machine element that comprises an elastomeric layer for the purpose of creating a seal (Par. 0045, lines 1-5). It would have been obvious to one of ordinary skill in the art to employ the elastomeric layer as taught by Patterson with the sealing lip or supporting ring of the combination of Davis and Driver because the elastomeric layer provides a surface that is much more conducive to sealing against the machine element or against other machine components.

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Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note that Bosich (4,922,232) and Butts (4,672,366) both teach an apparatus with a leak detector and an absorbent material for picking up the leak.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul M. West whose telephone number is (571) 272-8590. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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